

**Iowa Department of Natural Resources
Environmental Protection Commission**

ITEM

10

INFORMATION

TOPIC

Proposed Rule: Chapter 23, Haul Road Best Management Practices (BMP)

The attached Notice of Intended Action to amend Chapter 23 "Emission Standards for Contaminants" of the 567 Iowa Administrative Code is being presented to the Commission for information. At the September Commission meeting, the Department will request approval to publish a Notice of Intended Action on these proposed rule amendments.

This document was developed to assist facility owners or operators in identifying and applying appropriate Best Management Practices (BMP) to their paved and unpaved haul roads. The document also specifies haul road calculation methodologies to be used to generate emissions estimates for completing construction permit application and emissions inventory reporting forms, and clarifies when emissions from facility haul roads are required to be included in air dispersion modeling analyses for prevention of significant deterioration (PSD) projects.

All facility owners or operators are currently subject to the requirements of 567 IAC 23.3(2)"c" (the fugitive dust rule). The fugitive dust rule requires facility owners and operators to take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. A list of reasonable precautions are included in the fugitive dust rule and apply to all facilities regardless of the volume of traffic on the facility haul roads or the type of haul road. The BMP requirements in the haul road BMP document are in addition to the requirements of the fugitive dust rule and do not exclude a facility owner or operator from the fugitive dust rule requirements if emissions from the haul roads result in visible emissions that cross the lot line of the facility property.

For paved and unpaved haul roads that have at least 11,000 and 5,000 truck trips per year, respectively, the facility owner or operator will be required to calculate the emissions of particulate matter from the haul roads as specified in the haul BMP document. If the emissions are calculated to be greater than or equal to 15 tons per year of particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM10), then the additional haul road BMP requirements provided in the haul road BMP document will be applicable.

The haul road BMP document clarifies that emissions from haul roads are required to be included in the PM10 National Ambient Air Quality Standards (NAAQS) PSD air dispersion modeling analyses and air dispersion modeling analyses for the annual PM10 increment. The haul road BMP document also provides two options for addressing haul road emissions in the 24-hour PM10 increment analyses.

The additional BMP requirements specified in the haul road BMP document will minimize the generation of fugitive dust and will ensure that haul road emissions at facilities with high volumes of truck traffic will not cause or contribute to a violation of the NAAQS. Specifying the calculation methodology to determine when it is necessary to apply BMP will reduce uncertainty for facility owners and operators regarding the Department's approval of the calculations and will ensure that haul road BMP are applied on a consistent basis across the state.

An informational meeting will be held on July 25, 2007, at 1 p.m. in the conference rooms at the Department's Air Quality Bureau located at 7900 Hickman Road, Urbandale, Iowa. Interested members of the public may ask questions and provide informal comments on the proposed rule during the informational meeting.

Jim McGraw
Environmental Program Supervisor
Program Development Section, Air Quality Bureau
Memo date: July 9, 2007

ENVIRONMENTAL PROTECTION COMMISSION [567]

Notice of Intended Action

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby gives Notice of Intended Action to amend Chapter 23, “Emission Standards for Contaminants” of the Iowa Administrative Code.

The purpose of the proposed rule change is to adopt by reference the Department’s “Haul Road Best Management Practices (BMP)” document.

This document was developed to assist facility owners or operators in identifying and applying appropriate BMP to their paved and unpaved haul roads. The document also specifies haul road calculation methodologies to be used to generate emissions estimates for completing construction permit application and emissions inventory reporting forms, and clarifies when emissions from facility haul roads are required to be included in air dispersion modeling analyses for prevention of significant deterioration (PSD) projects.

All facility owners or operators are currently subject to the requirements of 567 IAC 23.3(2)“c” (the fugitive dust rule). The fugitive dust rule requires facility owners and operators to take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. A list of reasonable precautions are included in the fugitive dust rule and apply to all facilities regardless of the volume of traffic on the facility haul roads or the type of haul road. The BMP requirements in the haul road BMP document are in addition to the requirements of the fugitive dust rule and do not exclude a facility owner or operator from the fugitive dust rule requirements if emissions from the haul roads result in visible emissions that cross the lot line of the facility property.

The haul road BMP document clarifies that emissions from haul roads are required to be included in the particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM10) National Ambient Air Quality Standards (NAAQS) PSD air dispersion modeling analyses and air dispersion modeling analyses for the annual Class II PM10 increment. Problems with characterization of haul road emissions in EPA's preferred regulatory model "American Meteorological Society/Environmental Protection Agency Regulatory Model" (AERMOD) frequently result in high concentration predictions of 24-hour PM10 increment consumption. Some modeling analyses have demonstrated that facility haul roads can consume the entire 24-hour PM10 increment, even in cases where the haul roads have been controlled to the maximum extent possible. To address this problem, the haul road BMP document specifies that haul road emissions can be excluded from the 24-hour PM10 increment modeling analyses provided the most stringent BMP available are applied. The BMP requirements may change in the future if better materials and practices become available to further reduce emissions. This approach prevents unnecessary burdens from being placed on facilities to control emissions due to over-prediction of PM10 concentrations in the dispersion model. The Department believes this is a practical and reasonable solution given that a facility owner or operator can only control emissions from the haul road to the level of BMP available to the industry and, in some cases, could end up applying control greater than what would have been required by the site-specific Best Available Control Technology (BACT) analysis completed as part of the PSD project.

The Department generally does not include haul road emissions in air dispersion modeling analyses for non-PSD projects. The BMP specified in the haul road BMP document will ensure that haul road emissions are accounted for in the permits for non-PSD projects where haul road emissions could be a concern and minimizes the chance of requiring over-application

of controls due to poor characterization of the haul road emissions in the air dispersion model. Additionally, haul road emissions for non-PSD projects are only a concern at a small subset of sources where the haul roads are used on a regular basis and have a high volume of traffic. These sources of concern are required to implement more stringent BMP requirements to avoid causing or contributing to a PM10 NAAQS exceedance. The emissions from haul roads at sources with infrequent, low volume haul road traffic are considered to be accounted for in the PM10 modeling background values.

The additional BMP requirements specified in the haul road BMP document will minimize the generation of fugitive dust and will ensure that haul road emissions at facilities with high volumes of truck traffic will not cause or contribute to a violation of the NAAQS. Specifying the calculation methodology to determine when it is necessary to apply BMP will reduce uncertainty for facility owners and operators regarding the department's approval of the calculations and will ensure that haul road BMP are applied on a consistent basis across the state.

The proposed rule will amend subrule 23.3(2) by adding a new paragraph "e." As specified in the "Haul Road Best Management Practices (BMP)" document, for paved and unpaved haul roads that have at least 11,000 and 5,000 truck trips per year, respectively, the facility owner or operator will be required to calculate the emissions of particulate matter from the haul roads as specified in the haul BMP document. If the emissions are calculated to be greater than or equal to 15 tons per year of PM10, then the additional haul road BMP requirements provided in the haul road BMP document will be applicable.

These amendments are intended to implement Iowa Code section 455B.133.

The following amendment is proposed.

Amend subrule 23.3(2) by adopting the following new paragraph “e”:

e. Haul Road Best Management Practices. Procedures, practices, and methodologies for the calculation and application of measures to reduce particulate matter emissions from haul roads are those specified in the document “Haul Road Best Management Practices (BMP)”* adopted by the commission on [INSERT Adoption Date] and adopted by reference herein.

*Available from the department.

Date

Richard A. Leopold, Director